Listing of Claims:

1. (Previously Presented) A deposition method capable of filling recesses in a substrate, the method comprising:

(a) providing a substrate having recesses defining side walls and recess bottoms;

(b) exposing the substrate to an energized deposition gas comprising a first component comprising ozone and a second component, to deposit a first layer of a material in the recess at different rates over the side walls and recess bottoms; and

(c) reducing the ratio of the first component to the second component, to deposit a second layer of the material over the first layer in the recess.

2. (Original) A method according to claim 1 wherein one or more of the first and second components comprise oxygen-containing compounds.

4. (Previously Presented) A method according to claim 1 wherein the ratio-reducing step is performed by reducing the flow rate of O_3.

5. (Original) A method according to claim 4 wherein the ratio-reducing step is performed for about 30 seconds.

6. (Previously Presented) A method according to claim 1 wherein the second component comprises TEOS.

10. (Original) A method according to claim 1 comprising providing a substrate having recesses between polysilicon gates.

11. (Original) A method according to claim 10 wherein the recesses have sidewall portions covered with silicon nitride spacers, and wherein the silicon nitride spacers, the polysilicon gates and the other portions of the substrate, are covered with a silicon nitride liner.

12. (Original) A method according to claim 1 wherein the first layer has a thickness of from about 200 to about 800 angstroms.

13. (Previously Presented) A deposition method capable of filling recesses in a substrate, the method comprising:

(a) providing a substrate having recesses defining side walls and recess bottoms;

(b) exposing the substrate to an energized deposition gas comprising a first volumetric flow ratio of O_3 and TEOS, to deposit a first layer of silicon oxide in the recess at different rates over the side walls and recess bottoms; and

(c) reducing the volumetric flow ratio of the O_3 to the TEOS, to deposit a second layer of silicon oxide over the first layer in the recess.

14. (Original) A method according to claim 13 wherein the ratio-reducing step comprises reducing a flow rate of the O_3.

15. (Original) A method according to claim 13 wherein the ratio-reducing step is performed for about 30 seconds.

16. (Original) A method according to claim 13 wherein the recesses are between polysilicon gates and have sidewall portions covered with silicon nitride spacers, and wherein the silicon nitride spacers, the polysilicon gates and the other portions of the substrate, are covered with a silicon nitride liner.

17. (Original) A method according to claim 16 wherein the silicon nitride liner comprises reentrant cavities, and wherein the reentrant cavities are smoothened by the first layer.

18. (Original) A method according to claim 13 comprising depositing the first layer to a sufficient thickness to fill the reentrant cavities.

19. (Original) A method according to claim 18 comprising depositing the first layer to a thickness of from about 200 to about 800 angstroms.

20. (Previously Presented) A deposition method capable of filling recesses on a substrate, the recesses being between polysilicon gates and having sidewall portions covered with silicon nitride spacers, and wherein the silicon nitride spacers, the polysilicon gates and the other portions of the substrate, are covered with a silicon nitride liner, the method comprising:

(a) providing an energized deposition gas comprising O_3 and TEOS, to form a first layer of silicon oxide in the recess at different rates over side walls and recess bottoms of the recess; and

(b) reducing the volumetric flow ratio of O_3 to TEOS in the deposition gas, to fill the recesses with silicon oxide after the first layer is formed.

21. (Original) A method according to claim 20 wherein the ratio-reducing step is performed by reducing the flow rate of O_3.

22. (Original) A method according to claim 20 wherein the ratio-reducing step is performed for about 30 seconds.

23. (Original) A method according to claim 20 comprising depositing the first layer to a thickness of from about 200 to about 800 angstroms.

24. (Previously Presented) A method of filling recesses with a dielectric material, the method comprising:

disposing a substrate defining a recess into a processing chamber; and

continuously introducing a deposition gas into a processing chamber while gradually changing a relative composition of the deposition gas, such that conformality of the dielectric material within the recess decreases, and deposition rate of the dielectric material within the recess increases.

25. (Previously Presented) The method of claim 24 wherein the deposition gas comprises of ozone and tetraethoxysilane (TEOS), and a ratio of ozone:TEOS is decreased over time.

26. (Previously Presented) The method of claim 25 wherein the ozone:TEOS ratio is decreased by reducing a rate of ozone flowed into the processing chamber.

27. (Previously Presented) The method of claim 25 wherein the ozone:TEOS ratio is decreased by increasing a rate of TEOS flowed into the processing chamber.

28. (Previously Presented) The method of claim 25 wherein the ozone:TEOS ratio is changed over a period of about 30 seconds or more.

29. (Previously Presented) The method of claim 24 wherein the substrate defines the recess as a shallow trench.

30. (Previously Presented) The method of claim 24 wherein the substrate defines the recess between raised features.

31. (Previously Presented) The method of claim 30 wherein the raised features comprise adjacent gate structures.

32. (Previously Presented) The method of claim 24 wherein the dielectric material is formed over silicon nitride lining the recess.